# THE VETERINARY RECORD

A Weekly Journal for the Profession.

Edited by WILLIAM HUNTING, F.R.C.V.S.

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## AN ANIMALS' HOSPITAL.

We have before us some circulars and letters relating to the establishment of an hospital for animals in London. Expensive premises have been secured about half a mile from Belgrave Square, and subscriptions received to an amount exceeding £2000. The promoters ask for 1000 annual subscribers of a guinea each so that the institution can be opened and maintained on a good basis. A long list of Vice-presidents and Committee is published—nearly all ladies, and a majority with titles.

The objects are—

1.—To provide veterinary advice and nursing for animals whose owners cannot afford to pay for them.
2.—To provide veterinary advice and nursing for animals brought in injured from the street.
3.—To dispatch ambulances to bring in injured animals from the streets.
4.—In-door and out-door patients letters will be granted to subscribers and donors.

In the circular the Committee acknowledge the existence of numerous veterinary establishments all over the Metropolis, but point out that these cannot provide gratuitous treatment. They emphasize the need of provision for "the poor" but they use the expression—"It is our *chief* endeavour to take under our care the animals of the poor." We underline the word because it leaves open to the promoters the taking care of animals of rich owners.

Everyone knows the shameful abuse of London Hospitals by persons quite able to pay, and an Animals Hospital will be open to the same abuse. Veterinary surgeons will find that many of their clients who now pay—and can afford to pay—will make use of this new charity.

At the present time there are two places in London at which animals are treated for the poor gratuitously. There is a free Clinique at the College at Camden Town. There is another at the Brown Institute near Vauxhall. At both these places men owning a dozen or twenty horses obtain relief and advice by fraudulent assumption of poverty—at the expense of the private practitioner.

This new institution has chosen an expensive place close to Belgrave Square, whereas it would be more useful at Poplar or Bermondsey. In those distant and poor neighbourhoods there is a big field for charity, but it would be a long drive for the charitable committee to go and see their humanity in practice.

The "Animals Hospital" have appointed "a resident foreman who thoroughly understands in every way the nursing of sick animals," and they "are anxious to arrange for a certain number of veterinary surgeons to give their services as honorary and consulting surgeons on various days." We confidently hope that no M.R.C.V.S. will be entrapped into any connection with this novel institution. It will be time for us to give help when the Committee contains a fair proportion of veterinary surgeons. Until then we may leave the Animals Hospital to its lay committee and its "resident foreman." It is safe to say that without veterinary assistance the committee and its "foreman," if they treat animals at all, will be guilty of gross inhumanity through mistaken diagnosis, and that the whole scheme will be the source of trickery, misplaced sentiment, injury to animals, and injustice to veterinarians.

## FIELD VETERINARY HOSPITAL:

### INSPECTION BY H.R.H. THE PRINCE OF WALES.

In the hope that it may interest some of your readers, I am forwarding you a photograph of a Field Veterinary Hospital, as exhibited to His Royal Highness The Prince of Wales, at his recent visit to this far away part of his future dominions.

You will be glad to hear of the flattering comments that were bestowed on the exhibit by all who saw it, and they were not a few. This was no doubt partly due to the fact that it was the first glimpse that many there had of our methods of dealing with our sick and wounded equine friends during war, but, in a much greater degree to the impression produced by its extreme completeness and neatness. Everything so up-to-date, so spotlessly clean, and just the thing that was wanted, from the cooking pots and the homely spade to the microscope and the tabloids, all bear silent witness to the advancement of veterinary art, and the place it takes in modern war. Judging from this turnout, let us hope that our part may always be in such hands.

Assembled for the manœuvres preceding the Grand Review held in honour of His Royal Highness, there was quite a gathering of our profession, the following being the Departmental Parade State:—

Assistant Deputy Director of Manœuvres—Lieut.-Colonel R. Pringle, D.S.O.

*Northern Army.*

Senior Veterinary Officer—Captain Houston.
1st Cavalry Brigade—Lieut. Deacon.
2nd Cavalry Brigade—Lieut. Gamble.
1st Infantry Division—Lieut. Matthews.
3rd Infantry Division—Lieut. Swanston.

*Southern Army.*

Senior Veterinary Officer—Captain Coley.
3rd Cavalry Brigade—Lieut. Jackson.
4th Cavalry Brigade—Lieut. Fisher.
2nd Infantry Division—Lieut. Argyle.
4th Infantry Division—Lieut. Hylton Jolliffe.

*Head Quarters.*

Captain Southey; Lieuts. Dibben and Thomas.

Owing to the distance separating the two armies and having to march with our units, we did not see much of each other until after the review and march past. Our best thanks are therefore due to Captain Coley for his happy suggestion of a dinner among ourselves to wind up the proceedings. He organised the dinner, arranged the menu, secured an excellent chairman, and did all in his power to make it the success it proved. An invitation was sent to Colonel Matthews, Principal Veterinary

Officer in India, but unfortunately he was prevented from coming.

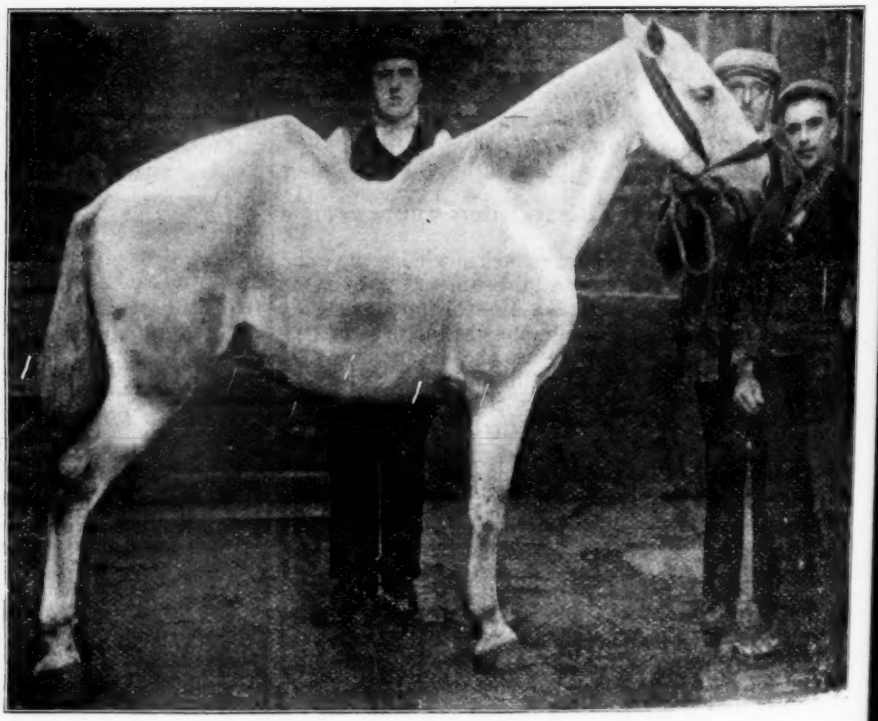
The dinner took place at the Café Ahrens, Rawal Pindi, on Saturday, 9th December, and Colonel Pringle, Inspecting Veterinary Officer Northern Command, presided. The Chairman gave the usual loyal toasts, the evening passed very pleasantly, and everyone enjoyed it thoroughly. The final toast of "Fox-hunting" was submitted in a few well chosen sentences by the Chairman, and was enthusiastically received, and on the next day all began to return to their stations.

MULTUM-IN-PARVO.

Rawal Pindi, Jan. 17.

## A SWITCH-BACKED PONY.

The enclosed photograph was that of a grey pony, which had malformation of the spine from birth—aged 16 years. Had always been thoroughly up to his work, and went in very good style with useful all-round action. The owner sent in a message saying that he had a fish-backed pony showing symptoms of brain disturbance.



On examination he exhibited all the symptoms of meningitis—intense excitement, staggering gait, any attempt to raise the head intensifying the symptoms. Slaughter was advised, to which the owner was not agreeable, but after a few days treatment he got rapidly worse and he was destroyed.

The photograph I have shown to a great number of people and they all agree in saying that the pony is not a fish-backed one. Some have suggested that he was camel-backed, but in that case the convexity should be further forward. The best solution I have yet received was that of a fellow student who, on seeing the photograph, described it at once as a switch-backed pony.

GEO. YATES.

## AN EXPERIMENT IN FEEDING HORSES.

By HENRY TAYLOR, F.R.C.V.S., Hayward's Heath.

The experiment detailed below took place in Edinburgh in 1902, and I think is of sufficient interest to merit being put on record.

The horses in question were the property of a firm of coal merchants and were used for the purpose of carting coal from the station to the consumers' premises. Taken all round they were a good stamp of vanner, though one or two were rather of the small cart horse build. They were chiefly Canadians. Their stabling was very good and the animals were well looked after. The loads they used to draw I should imagine would average perhaps a ton. The carts weighed perhaps half a ton. Their work necessitated them being out in the open air from morning until about 5 o'clock, and the experiment took place in the autumn.

The food consisted simply of hay and oats, the latter home grown and chiefly of the white variety. Part of the hay was given long and part cut into chaff and mixed with the oats, forming what is called "chop," the exact composition of which is given below.

The hay and chaff were, practically speaking, exclusively composed of Italian rye grass, which is extensively grown in that part of Scotland.

At the commencement the following was the ration:—

| | | |
|---|---|---|
| 6 lb | of "chop" | for the morning feed. |
| 13 ,, | ,, | in the nose bag for midday feed. |
| 6 ,, | ,, | at night. |
| 14 ,, | long hay | given all at night. |
| 39 lb | | |

The chop was composed of 6 cwt of hay chaff and 10½ cwt of oats. Each horse, as the above table shows, received 25 lb of chop daily, and this would therefore be made up of the following quantities—oats 15·909 lb, hay chaff 9·091 lb.

We will take these quantities as 15·9 and 9·1 respectively, and if we add the 14 lb of long hay to 9·1 we get as the daily hay ration 23·1 lb. Briefly expressed therefore the complete daily ration would be—

15·9 lb oats.
21·1 lb hay.

39 lb total.

Previous to Sept. 23, 1902, the animals had been receiving the above. On that date they were each

weighed, and henceforth received each 2 lb *less* of long hay per day. I should state that each animal on each occasion was weighed as it came in from work, about 5 or 5.30, before being allowed any food or water.

At the end of about a month they were re-weighed, and it was found that the majority of the animals had lost weight. They were then put on to the old ration again, and the horses gained in weight (except in one or two cases where they were kept back by sickness), and as the representative of the firm said "much improved in condition generally."

All these horses with the exception of Jumbo were young horses. It is rather curious that six horses lost exactly 1 qr. each when the ration was reduced.

Reasoning from the above result we may deduce that the horses of this firm require the heat or work-producing power of the first ration in order to maintain their weight without loss.

The fatty ratio of the former is 1 : 3·8, and the nitrogenous ratio 1 : 4·54 The nitrogenous ratio of the latter is 1 : 4·58 nearly.

In *The Veterinary Record* for February 11, 1905, there is an able article on the "Economics of

| | Weight Sep. 23, 1902, on 15·9 lb of oats and 23·1 lb of hay. | | | Weight Oct. 27. 1902, on 15·9lb of Oats & 21·1 lb of hay, *i.e.*, 2 lb per day less | | | | | | Weights about Nov. 27, '02, and on former ration again. | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Cwt. | qr. | lb. | Cwt. | qr. | lb. | | qr. | lb. | Cwt. | qr. | lb. | | qr. | lb. |
| Jumbo | 13 | 2 | 0 | 13 | 2 | 0 | | | | 13 | 3 | 0 | Gain | 1 | 0 |
| Charlie | 11 | 3 | 21 | Sick | | | | | | 12 | 0 | 0 | | | |
| Peggy | 12 | 2 | 14 | 12 | 0 | 0 | Loss | 2 | 14 | 12 | 0 | 0 | | | |
| Tibbie | 12 | 2 | 0 | 11 | 3 | 0 | ,, | 3 | 0 | 12 | 0 | 0 | ,, | 1 | 0 |
| Captain | 12 | 1 | 0 | 12 | 1 | 0 | | | | 12 | 2 | 0 | ,, | 1 | 0 |
| Nigger | 11 | 0 | 14 | 10 | 3 | 14 | ,, | 1 | 0 | 11 | 0 | 0 | ,, | | 14 |
| Sally | 11 | 3 | 0 | 11 | 2 | 0 | ,, | 1 | 0 | 12 | 0 | 0 | ,, | 2 | 0 |
| Bobs | 11 | 0 | 14 | 10 | 3 | 14 | ,, | 1 | 0 | 11 | 0 | 0 | ,, | | 14 |
| Prince | 12 | 0 | 0 | 11 | 3 | 0 | ,, | 1 | 0 | 12 | 2 | 0 | ,, | 3 | 0 |
| Tom | 11 | 3 | 0 | 11 | 2 | 0 | ,, | 1 | 0 | | | | | | |
| Jess | 12 | 2 | 0 | 12 | 1 | 0 | ,, | 1 | 0 | 12 | 1 | 0 | | | |
| Darkie (new) | 11 | 2 | 0 | 11 | 0 | 0 | ,, | 2 | 0 | 11 | 0 | 0 | | | |
| Sandy | Away | | | 13 | 1 | 0 | | | | 13 | 1 | 0 | | | |
| Sodjer | Sick | | | 11 | 3 | 0 | | | | 12 | 0 | 0 | ,, | 1 | 0 |
| | | | | | | | Loss | 3cwt. | 1 1 | | | | Gain | 2cwt. | 2 0 |

*Composition of Constituents of the Ration.*

| | Proteids. | | | Carbo-hydrates. | | | Fats. | | |
|---|---|---|---|---|---|---|---|---|---|
| | Amount in 100lb | Digestive Coefficient. | Digested from 100 lb. | Amount in 100 lb | Digestive Coefficient. | Digested from 100 lb | Amount in 100 lb | Digestive Coefficient | Digested from 100 lb |
| Oats (Warington's analysis) | 11·3 | 86 | 9·7 | 57·3 | 74 | 42·4 | 5·4 | 71 | 3·83 |
| Italian Rye grass hay (Wolff's analysis) | 11·2 | 57 * | 6·3 | 40·6 | 55 * | 22·3 | 3·2 | 24 * | ·76 |

* Wolff gives these figures as the digestive co-efficient for hay, simply. I am unable to find the exact ones for Italian rye grass, but we may take them as being approximately correct.

*Heat Producing Power of the Two Rations.*

| Food. | Proteids. | | Carbo-hydrates. | | Fats. | | |
|---|---|---|---|---|---|---|---|
| lb. | Amount digested | Heat producing power. | Amount digested. | Heat producing power. | Amount digested. | Heat producing power. | Total Heat producing power. |
| 15·9 Oats | 1·542 | 1·542 | 6·741 | 6·741 | ·60897 | 1·4006 | 9·6836 |
| 23·1 Hay | 1·470 | 1·470 | 5·153 | 5·153 | ·177 | ·4071 | 7·0301 |
| | | | | | | | 16·7137 |
| 15·9 Oats | 1·542 | 1·542 | 6·741 | 6·741 | ·60897 | 1·4006 | 9·6836 |
| 21·1 Hay | 1·345 | 1·345 | 4·708 | 4·708 | ·162 | ·3726 | 6·4256 |
| | | | | | | | 16·1092 |

Feeding Draught Horses," by Prof. Woodruff, and in it he gives the L.C.C. tram horse ration which gives a total heat-producing power of 14·163. For the purpose of comparing this ration with the above one I have, as far as possible, used the analysis he does, and worked the thing out on the same lines. The horses in the two cases are not performing the same kind of work, the tram horses do their's at the trot, the others at a walking pace.

One would think that the tram horses with their continual starting and stopping, and doing their work also at a faster pace would require more food and also food with a higher nitrogenous ratio. But the tram horses only received 2 lb of peas, 4 of oats, 8 of maize, 11½ of hay, and 1½ of oat straw, giving a total of 27 lb daily. The nitrogenous ratio is 1 : 5·12.

The nitrogenous ratio in the above table seems to be high, but it is due to the fact that the analysis of Italian rye grass is given as containing practically as much proteid as oats, though much less carbo-hydrate.

The hay ration of 23 lb daily conveys the impression that the food was bulky and that it would have been advisable to reduce it and give more concentrated food. It is very probable that the digestion of that quantity absorbed a good deal of the energy or heat-producing power supplied in the ratio.

I should mention that this experiment was not undertaken with the sole object of finding out how cheaply the animals could be fed, but a member of the firm suggested that they might do with 2 lb of hay per day less, and this was tried.

The young horses bought by this firm nearly always improved in condition during their work, and frequently when sold after two years work fetched more than their purchase price. Moreover, the freedom of this stud from colic was a marked feature. I only remember one case in two years.

It is very curious that in the above experiment the fact of diminishing the ration by 2 lb of hay per day resulted in six horses losing exactly 1 lb a day in weight, and three others 2 lb or more per day each.

## COW-POX.

A few days ago I was called to a white shorthorn cow suffering from a rash on the udder. In examining her closely I found the teats to be swollen and tender and showing an eruption of red spots. After a few days these turned into red nodules the size of a pin's head, and surrounded by a red ring. In from three to four days the pimples became depressed in the centre and filled with a serous fluid; after a time the vesicles become pustules, which in time break and discharge, or dry up with a dark brown crust, which becomes detached and leaves a brownish red spot. On the udder itself the pustules seem to run together in a body and form a large mass which falls off in one piece.

The eruption extends down the inner side of the thigh to the hocks, and occurs also on the lips, due to inoculation from the cow licking herself.

Before the eruption the owner had only noticed her off her feed a few days, but she showed all signs of good health during the stage of eruption except for slight elevation of temperature.

I sent some of the discharge to an eminent pathologist who wrote informing me that it was a typical case of variola. Since then I have had two more cows affected similarly, besides the pig (which was fed on the milk from this cow) showing an eruption of the skin.

HERBERT BIBBY, M.R.C.V.S.

P.S.—I cannot explain the origin of this outbreak, as it was a newly purchased cow from an auction.

## SOME JOINT DISEASES OF THE HORSE'S LEG,*

By WILLIAM HUNTING, F.R.C.V.S.

The anatomical constituents of the joints of the limbs are bones, cartilage, synovial membranes and connecting ligaments. These different structures when diseased are altered in varying degrees accord ing to the intensity and nature of the affection. Hence the variety of articular lesions and the difference of the symptoms accompanying joint diseases.

A characteristic of equine joints in the limbs is the well-defined form of the articular surfaces—marked prominences and depressions, ridges and grooves fitting into each other with great exactness. The component parts are bound together by very strong ligaments, and in many cases the joints are strengthened by the close apposition of passing tendons. This arrangement limits the direction of motion in the joints, and we find that flexion and extension are the chief movements permitted to the bony segments of the horse's limb. A very limited amount of rotation is allowed at the fetlock and circumduction is only provided for at the shoulder and hip joints. As might be expected from such conformation, dislocations are rare in horses. The violence which in man or dog would lead to dislocation causes fracture in the horse.

It may also be noticed that the adult horse seldom suffers from any joint disease due to general infections such as rheumatism, tuberculosis or analogous diseases. Suppurative changes in equine joints are rare except as the result of traumatism and the direct admission of septic organisms. These cases are outside of the conditions I wish to consider today.

One of the very first questions to be settled when discussing articular disease in horses is the incidence of sprain as a causal factor. Is sprain of the ligaments of a joint common? I am inclined to think not. My experience hardly includes a sprained joint other than the fetlock. This may possibly be due to error of diagnosis. In young horses, lameness with no local sign to indicate its seat is not uncommon, and it is plausible, if not reasonable, to believe that such cases are due to ricks or sprains

* Read at the meeting of the Midland Counties V.M.A. at Birmingham, Feb. 9th.

VETERINARY FIELD HOSPITAL IN INDIA.

—but they may be of muscle, tendon or ligament. Sprain of the ligaments of a joint, when detected, is a tolerably clear condition showing swelling, pain, and heat in the part. But it must be allowed that these symptoms vary in degree according to the violence which produces them, and it is possible an injury to ligaments may be so slight, or in such a position, as to evade detection by any clinical symptoms and yet be capable of causing lameness.

Sprain of ligament is followed by effusion in and around the damaged tissue. In slight cases all this effusion may be absorbed and the lesion repaired, leaving no trace of the original injury. In other cases the effusion becomes firm, adjoining tissues are implicated and the parts remain enlarged, hardened and adherent to each other. In this way joints become more or less fixed, and fibrous anchylosis is brought about. Lameness is not very great, and the horse may work for months whilst the joint is gradually becoming more and more limited in its motion by the increase of the fibrous envelope. I incline to believe that all these cases of fibrous fixation of joints follow sprain or bruise of the surrounding ligaments, and this belief is based upon the fact that when such joints are dissected the bones and articulations are found to present little if any disease. The cases prominently in my mind are those affecting the knee and fetlock—those of the larger joint being always due to blows.

Of course I do not include in this description those cases of shoulder and elbow trouble in which marked lameness exists throughout, and in which a post-mortem examination discloses all the distructive changes of acute arthritis. Such cases never arise from sprain.

I have said that dislocation is rare in the horse, but relative displacement of the bones of a joint is not uncommon. The fixation of the patella upon the femur is an exaggerated instance of this. "Bent knees" and "shot-fetlock" are very common examples, and they result from no disease of the joint. They are brought about by distant causes. Bent knees may arise slowly and passively from painful disease in the foot. Shot-fetlocks follow contraction of tendons. The permanent flexion of the foot on the coronet which raises the heel from the ground is another illustration of alteration in the position of bones in a joint, due to some distant contraction of muscle or tendon. When this partial displacement occurs very little change in the joint is disclosed by post-mortem examination. At the worst we find some thinning of cartilage and perhaps a slight absorption of bone marking the effects of uneven pressure.

Bruises from kicks and falls are common causes of joint disease. Passing by the more serious cases which may produce fracture of a bone, or such serious destruction of soft tissues as to set up suppuration, I would direct attention to some well known slighter injuries. Horses in a stable separated by bales frequently injure their hocks by kicking against the bales, or sometimes receive injury by direct kicks from neighbouring horses. It is extremely rare to find any articular mischief resulting, although lameness may exist for a week or two. There is usually swelling and sometimes to a considerable extent. In most cases some of this remains permanently, but in very few cases is the swelling due to any bony enlargement although it feels as hard as bone. Periostitis may follow injury from bruising of bone, but is not common.

There are three things which have an undoubted influence on the origin and development of joint disease in the horse—age, work and heredity. Horses are not put to hard work by sensible people till they are five years old. Younger than this, joint disease is only seen as the result of premature hard work. Some bony changes—splint, ringbone and spavin, for instance—make their first appearance at the age we are referring to and, if not then developed, seldom arise at a later age. Some articular diseases are rarely met with until the horse reaches seven or eight years of age, such as navicular disease, "cab-horse disease" and the so called "false-ringbones."

Bone disease, and especially such as is found in connection with joints, has a direct relation to work—to work on hard roads. It is true we find some of the worse cases of bone and joint disease in country horses, but that is due to the return to the land of cripples from the towns, and to the rejection of unsound youngsters by town buyers. I believe the great exciting cause of joint and bone disease in horses is concussion caused during work on hard roads, and I think the primary damage is inflicted not upon the soft tissues, such as ligament and synovial membrane, but upon bone.

It is generally accepted that hard work can only be performed by horses "in condition"—that is, in the state of highest physical fitness, in which all the organs are functionally perfect and specially the muscular system. A horse "in condition" has the most perfect control over his muscles, and so long as co-ordination of muscular action exists no sprains of ligaments or tendons occur. It is not an excessive effort that causes sprain—it is want of co-ordination of muscular action that throws weight or force upon some single structure not prepared to meet it. The mature horse in good condition, working daily, does not suffer from sprain, and yet this very animal is often the one to suffer from lameness due to changes in joints, which come on gradually and progress slowly, which frequently show no definite sign of the nature or seat of lameness until a more or less sudden development is accompanied by acute lameness and some local enlargement. Whilst allowing that perfect co-ordination of muscular action during progression is accompanied by less concussion than when muscles are immature or weak, I venture to allege that some concussion through the bones of the limb must always take place when horses are doing fast work or dragging heavy loads on hard roads. Thus even the best conditioned horses suffer from the effects of concussion, although they may avoid the sprains of ligaments and tendons which result from in-co-ordinate muscular action.

The influence of heredity upon the origin of bone disease is generally acknowledged. A concensus of opinion of veterinary surgeons was obtained by the R.C.V.S., some years ago at the request of the R.A.S., and the Royal Commission on horse breeding. Ringbone, spavin and navicular disease were

consequently scheduled as hereditary diseases. Exactly what this hereditary tendency is, and how it acts, we do not know, but we do know that it is a fact. Experience has demonstrated that if sire and dam suffer from these scheduled diseases, the offspring seldom escape from their development, and even when only one parent exhibits the unsoundness the tendency is transmitted. The same conclusion is enforced by the fact that since breeding animals have been rejected at shows for these defects there has been a marked decrease of such unsoundnesses in the young stock. We must, then, admit the direct influence on bone and joint disease of age, work and heredity.

The changes found on post-mortem examination of joints are various. The enveloping ligaments are in many cases unaltered whilst bones and cartilages are deeply marked by destructive inflammation. Sometimes the ligaments are much thickened, whilst the bones and cartilages are almost unaltered. In other cases ligaments are distended by an exaggerated amount of synovia, and occasionally are invaded by bony formation.

Cartilage may be only thinned, it may be discolored, and it may be absent. Most frequently it shows patches of necrosis and is abraded or even grooved by the action of the joint.

The synovial membranes in acute cases are thickened and stained, and the synovia altered in quality. In many old chronic cases the synovial membranes are only very slightly altered.

The bones are often not examined at all, practitioners being satisfied by an inspection of the joint surfaces. I plead guilty to as great negligence in this respect as my friends, but there are some who deserve to be recognised for their careful observations, among them—Col. Fred Smith, Professor Macqueen, Mr. Willis, and Mr. Routledge, to all of whom I am indebted for a good deal of second-hand information. Inflammation of bone has not obtained the attention it deserves. In nearly all old chronic joint diseases some of the bones forming part of the joint will be found altered in density, or colour, or form. Periostitis around the circumference of the articular surface is common, and as a rule lameness precedes the appearance of any enlargement. Very often the head of the bone, as seen through the articular cartilage is changed in colour, being in acute cases redder or darker than normal, but in chronic cases—those usually seen—of an extra white aspect. If a section be made of the bone it is found either softer than usual or much harder. Sometimes an unsuspected fracture of the bone is found and the sefractures vary from a mere line or depression to a well marked separation. The fractures I specially refer to are not, apparently, the result of one sudden concussion, but are small progressive affairs always accompanied by other changes, such as destruction of cartilage.

Departing for a moment from these conditions, I should like to remind you of the complete return to soundness which may follow a traumatic fracture into a joint, and how some even extensive fractures of an articular surface may form a firm union without much sign of violent changes in the other parts of a joint. I was shown by Professor Gofton at the Dick School, an acetabulum broken into four or five pieces united by fibrous material, and the history of the horse included eight months work in harness after the injury had been inflicted. This specimen (exhibited) of the articular surface of the scapula shows a very similar union and appearance, but lameness was too great to permit a return to work. They were fractures in otherwise healthy bones. Disease in bone predisposes to fracture, and would happen more often if it were not that the pain resulting renders the horse too lame to work, and concussion is then avoided. Fracture often follows neurectomy because the horse having lost sensation in the part submits the bone to concussion, and it yields.

It is rather curious to find how much disease may exist in one bone of a joint whilst nothing abnormal is detected in its neighbour. In the fetlock condition known as "cab-horse disease" this is most notable. It is also curious to find that whenever this condition exists in the joints of limbs it is always the lower bone that is abnormal, except in the case of shoulder and hip, where it will be remembered the concave surface is above, whereas in the lower joints it is on the under side. I suppose the convex formation is stronger—more resistant to concussion than the concave.

Extension of disease in joints takes place from the first damaged tissue to others—from bone to cartilage and from these to synovial membranes. Probably inflammation arising originally in any one constituent of a joint may pass by continuity or contiguity of tissue to any or all the others. If this be a fact the difficulty of knowing which part of a joint is the first to become diseased is rendered more difficult.

How, for instance, are we to know what part of the stifle-joint is first affected in those cases of chronic arthritis when lameness and synovial distention are the first symptoms? How, again, can we determine the original seat of mischief in spavin? Is there a sprain, or is ostitis or periostitis the commencement?

In "cab-horse disease" is there a traumatic injury to the pastern-bone, or is the whole change in bone and joint due to concussion setting up inflammation of bone—an ostitis?

The non-suppurative joint diseases of the horse might possibly be classified as:—

*Acute Arthritis* in which the symptoms arise suddenly and all the soft constituents of the articulation are more or less affected—followed usually by recovery.

*Chronic Arthritis* such as is seen in stifle lameness when no recovery is evident and the changes are those of destructive inflammation affecting all the structures, with marked synovial change.

*Ostitis* which is well shown in occult spavin, in "cab-horse disease" and in ringbone.

*Periostitis* as evidenced in splint and what are called false-ringbones.

*Anchylosis*, which may be fibrous or osseous.

I have neither the time nor the knowledge necessary to discuss all these conditions, but I will briefly refer to one or two of them and make a rash generalisation which you may correct in discussion.

What is called "cab-horse disease" is detected

as a hard enlargement on the inner and lower portion of the fetlock joint. As a fact, what is seen and felt is a periostitis on the head of the os suffraginis. These cases show lameness long before any bony enlargement can be detected, and the lameness is undistinguishable from that due to the early stages of some cases of navicular disease and ringbone. A post-mortem examination shows no change in the lower end of the metacarpal bone. The lesions are limited to the pastern. Here are some specimens, and the most noticeable thing is that the bony enlargement—the periostitis—is always accompanied by some articular change. In many cases we have articular change previous to any periostitis. The pastern bone is always altered in density, softened in the early stages, or hardened in those of long standing. These changes, considered with the fact that lameness exists previous to any enlargement, are to me conclusive that the disease is an ostitis of the os suffraginis leading to periostitis and articular changes.

In ringbone a very similar sequence of events is found—lameness with no other visible change, followed by periostitis, and invariably articular changes. In false ringbone we have periostitis not implicating a joint, but in all old cases with hardening of bone.

In navicular disease the lameness is not in proportion to nor in accordance with the changes on the surface of the bone. Necrosis of bone may be found with no lameness, and great lameness may be unaccompanied by necrosis. In many cases the bones are softened, or hardened—in fact every stage of the disease is accompanied by ostitis, whether necrosis or periostitis be present or absent.

In spavin, lameness may exist with little or no periostitis, and the worst lameness is accompanied by no enlargement. As a rule lameness is shown before any swelling appears. In chronic cases there is always hardening of the bones due to ostitis.

Analogy suggests that all these conditions arise from a common cause, and that the first mischief is inflammation of bone—in short, that all the non-suppurative joint and bone diseases of the limb are first a true ostitis due to concussion influenced by heredity.

The effects of conformation on the origin of these inflammations of bone are not definite. I know of no form of hock that is specially predisposed to spavin, no form of pastern in which "cab-horse disease" is most frequent, and no shape of foot which specially tends to develope navicular disease. I should perhaps add that there is a foot very seldom affected—the narrow mule-shaped foot, when all four are of the same type.

In conclusion, a few words as to treatment.

Rest is certainly the treatment that appeals to the majority of surgeons in cases of painful joint disease. In acute arthritis I think theory and practice are at one in adopting rest as the most rational procedure. Flexion and extension of an acutely inflamed joint can only do harm. As soon as the inflammatory process has begun to decline we have to deal with the possibilities of adhesion and effusion. Both are evils, and treatment should be devoted to preventing or removing them. Motion, massage and pressure assist in this, and are very useful modes of treatment.

I have elsewhere reported two cases of partial fixation of the fetlock joint by effusion into and adhesion of the enveloping ligaments. Flexion of the joint was limited to about half its normal degree in each case. I could not detect any disease of bone in either horse, nor do I know whether they originated from sprain or bruise. One horse was being trained for a steeple-chase and was slightly lame at a trot. The other worked in a cab and was slightly lame at starting.

The steeplechaser was treated by walking exercise, cold ablution, massage, passive movement and dry cotton-wool bandage at nights. The cab horse was sold to an anti-toxin establishment, had no treatment, but was well fed in a stall. At the end of three months the cab-horse's fetlock was firmly fixed throughout. At the end of six months the steeplechaser had recovered a considerable amount of the lost movement in the joint, was sound in action and ran second in a severe race. So far as they go these two cases seem to me very instructive, but they are inconclusive because a post-mortem examination could not be made on either.

Fixation of joints as a method of treatment, except under a belief that they contain a fractured bone, I do not think is good practice. Exercise is necessary as soon as the degree of lameness indicates that no very acute inflammatory changes are going on. To thoroughly clear up all morbid changes in an inflamed joint, exercise is invaluable, and at such times of year as the weather permits I favour turning out to grass as the best form of exercise.

Blistering I do not value highly. I incline to believe that a blister on any inflammatory swelling of soft tissue is more likely to harden it and render it permanent than to promote absorption.

Ostitis may be divided into two divisions for treatment—acute and chronic—classification of each case being dependent upon the degree of lameness. The first thing necessary is to stop concussion. In these cases as soon as acute lameness subsides I believe in blistering or even firing. My faith is based upon purely empirical observation and may not be sound. Cases differ so in the nature and degree of the pathological changes that comparison of results is difficult. Hot water fomentation in acute cases seems to afford relief and thus does good. Cold water, except in conjunction with massage, I do not advise, and never use save to obtain the reaction which follows. Cold water used for this purpose need not be employed for more than ten or fifteen minutes at a time.

Whether it is that ostitis is not treated by sufficiently long rest at the commencement of equine cases, or whether it is practically incurable if allowed to once cause changes such as softening or hardening of bone, it must be confessed that very many cases do not respond to treatment. When necrotic changes take place within a joint I think they are never cleared up.

In these incurable cases a year, or sometimes two years of work without pain may be obtained by

neurectomy. When a horse is useless from an incurable lameness I think there is every reason for a trial of neurectomy. For foot cases a plantar operation is preferable. For fetlock trouble it is necessary to operate higher up, and in fore limbs the median nerve is cut. Accidents must of course be considered, but they are no more likely to occur in unnerved than in lame horses. Failure more often follows the natural progress of the disease. Softening of an inflamed bone predisposes to fracture and we find that the pastern, pedal and navicular bones frequently fracture after neurectomy. The cases which last longest are those which are operated on early. The longer disease has been present the greater the risk of fracture—but this again depends upon the amount and kind of change induced in the bone.

## JAVA BEAN POISONING.

In view of the recent cases of cattle poisoning from this source, it may be of interest to recall the work of Professor Dunstan and Dr. Henry of the Imperial Institute, communicated to the Royal Society in 1903. The beans are those of *Phaseolous lunatus* indigenous in the East Indies. They contain an active principle *phaseolunatin*, a member of the chemical group of glucosides. Fairly strong acids cause phaseolunatin to be resovled into glucose, acetone, and hydrocyanic acid, a change which is also brought about in a mash of the ground beans with water, by the fermentative activity of of an enzyme, *emulsin*, also found in the bitter almond. This latter action accounts for the poisonous effect, and also for its comparative slowness.

The most remarkable feature of the case is, however, the circumstance that under cultivation the poisonous glucoside disappears, probably on account of improved nutrition and environment.

Dr. Henry informs me that the natives use the cultivated bean as food. The wild variety must, on the other hand, be regarded as a dangerous poison.

G. D. Lander.
Royal Vet. Coll., Camden Town, N.W.

## IRISH VETERINARY DISPENSARIES.

By E. Wallis Hoare, F.R.C.V.S.

Not so very long ago the idea of forming Veterinary Dispensaries was in the embryonic stage. When it was first mooted, considerable opposition was offered by a large number of practitioners whose interests were threatened by the innovation. The matter was discussed at meetings of the Irish Veterinary Associations, and apparently nothing further was considered necessary than to wait for further developments.

The embryonic stage has now passed, and there is every indication of a fully-formed project being the ultimate result, so that it behoves the practitioners in Ireland to seriously consider the effect that this scheme is likely to produce, both from a financial and a professional aspect.

To practitioners in large cities who are independent, and who have few if any clients of the farmer class, this matter may not seem an important one. But to those in general practice in provincial towns and in country districts the scheme will surely prove most injurious, not only financially but also, as I shall endeavour to show, it will tend to lower professional status by creating a form of competition that has not hitherto existed in this country.

No doubt from the farmers' point of view the idea is an excellent one; no other profession can be got to work on such terms as those proposed. For example, a farmer entitled to come under the proposed scheme would not obtain the services of the dispensary doctor without paying a reasonable fee unless, of course, it was proved that he was unable to afford the expense of medical attendance. Nor will any philanthropic body obtain for him the services of a lawyer for 2s. 6d. and 1s. fees, although the amount of money spent in law by farmers of this class is very considerable; this is evidenced by the large number of solicitors who earn a good living in even remote country towns that could not support a veterinary surgeon.

Again, we do not hear it suggested that business houses should sell their goods at ridiculously low figures to farmers of this class, nor do Committees of Agriculture formulate schemes to provide alcoholic liquors at special rates for them—a commodity that would be far more likely to please and be availed of than gratis veterinary services. To an ordinary observer it must appear an absurd idea that veterinary attendance, above all other requirements, must be supplied on special terms.

The individuals who are the leaders of these committees, may appear to be actuated by philanthropic motives in urging the necessity for Veterinary Dispensaries; on this point, however, we may with reason be a little sceptical. The threat contained in the resolutions adopted, viz., that if the local veterinary surgeons declined the offer of appointment there were plenty more to come forward, is an index of what is likely to follow, and is also an indication that the profession should without delay take steps to protect its position.

No one for a moment can question the fact that farmers of the type mentioned in the scheme are badly off. This we admit. But we deny that they are unable to pay the modest fee which is demanded by the country practitioner. Farmers of this class comprise a considerable bulk of the clients in a country practice, and if the practitioners are to be deprived of these the result will be serious.

The gratuities offered by the Committee (we cannot designate them fees) could not possibly be accepted by any self-respecting practitioner. A cabman would not give his services for such a tariff.

Let us consider the effect that the proposed scheme is likely to produce from a professional point of view. First, there will be the evils of competition of the most virulent form. The local practitioners are hardly likely to accept the miserable pittance offered, hence a number of new importations will be the inevitable result. All must live somehow, and the competition, already sufficiently

keen, will arrive at such an extreme that all the rules and efforts of the Registration Committee will fail to prevent gross unprofessional conduct from being practised.

Then, is it likely that any man who is compelled to drive long journeys for the sum of 2/6 or 1/- will take any interest in his cases, or endeavour to improve his professional knowledge. To be the servant of farmers, liable to be called to the most trivial cases at any hour of the day or night, is a most encouraging outlook for future professional life

We must not expect any consideration from the Board of Agriculture in this matter. Bitter experience of the evils resulting from their popular veterinary lecturers has convinced us that this august body cares nothing for the effects that are likely to ensue from their plans and machinations. We have already been deprived of a large source of income by reason of the wholesale distribution of not only veterinary knowledge, but also of appliances to farmers, who now treat their own animals instead of employing a veterinary surgeon. The light has been spread with a vengeance; and now it seems likely that the *coup de grâce* will be given, in the shape of sixpenny dispensaries for horses and cattle.

The evils of the worst type of charlatans and quacks are as nothing compared with the disastrous results that will follow the veterinary dispensary system. The quacks, like the poor, we shall always "have with us," and we find that their influence with the public is becoming a thing of the past. But the sixpenny dispensary veterinary surgeon we cannot compete with; he will require to be an individual of iron constitution in order to carry out his multifarious duties. To efficiently perform his inspection work as well as to be at the beck and call of that most considerate of men—the Irish farmer—he must be like Boyle Roche's bird.

The local committee in this district has already received the resolution of the Queen's County Committee for approval, and we presume that all over the country a similar process of amalgamation will result. It is now time that the members of the profession should consider the most advisable steps to take in order to protect their interests, and we hope that the Associations in Ireland will call a meeting at an early date to discuss the matter.

## WEST OF SCOTLAND VETERINARY MEDICAL ASSOCIATION.

A meeting was held in the Religious Institute Rooms, Glasgow, on Wednesday, January 10, 1906, at 4.30 p.m. The President, James Weir, F.R.C.V.S., in the chair, and there was a large attendance including Messrs. Blue Mitchell, Renfrew, Roy, J. R. McCall, Forrest, Geo. Weir, McNicoll, Campbell, McFarlane, Glasgow; Douglas, Kilmarnock; Hamilton, Hamilton; Robertson, Kirkintilloch; Taylor, Cathkin; Brown, Kilburnnie; W. P. Begg, West Kilbride; McMurrich, Helensburgh; Donaldson, Largs; H. Begg, East Kilbride; Allan, Busby; Anderson, Cupar Fife; Baird, Thornhill. Visitors: Messrs. Duncan MacLeod, M.R.C.V.S.; Geo. R. McCall, M.R.C.V.S., and Anderson, Hill, and Somerville, students.

The Hon. Sec. read the minutes of the previous meeting which were confirmed.

The annual statement and balance sheet for the year were submitted, duly audited by Messrs. Blue and McNicol and found correct, were approved of.

On the motion of Mr. Taylor, seconded by Mr. Forrest, the office bearers were re-elected for the ensuing year.

The communication received from the Lancashire Veterinary Medical Association *re* Parliamentary Representation, was then discussed, and the motion to send a delegate being carried, the Hon. Sec. (Mr. Begg) was invited to represent them.

It was agreed at the instance of the majority of the members present to alter the hour of meeting from 4.30 to 3.30 p.m. in order to suit the convenience of the Country members, who would otherwise be unable to stay throughout the meeting.

### Simmons *v.* Sheather.

The President referred to this important law case, and it was unanimously resolved that the Secretary be instructed to write Mr. Sheather congratulating him on the success of his able defence, and thanking him for his efforts in establishing the responsibilities of a veterinary adviser.

### Congratulations to Sir John M'Fadyean.

Mr. R. G. Anderson proposed "That this Association mark its appreciation of the high honour done to Prof. M'Fadyean in conferring a knighthood upon him—and that we congratulate him on an honour, which, for personal merit and ability, he has undoubtedly won."

Seconded by Prof. J. R. McCall and carried with acclamation.

### Discussion on Mr. John Renfrew's Paper

The discussion was opened by the President, and the following gentlemen also took part: Messrs. Roy, Mitchell, McMurrich, Begg, McCall, and Henderson. The debate was of an extremely interesting character, several members speaking at considerable length, and at the termination Mr. Renfrew suitably replied.

### Cattle Poisoning.

Mr. Hugh Begg (East Kilbride) desired to call the attention of the meeting to the several outbreaks of cattle poisoning which have occurred in various localities in the neighbourhood of Glasgow, within the last ten days. One case took place in his own district on New Year's day, in which the farmer lost several cattle, after feeding with bean meal made from Java beans. He would like to learn if any of the members had experienced similar cases.

The President said he had a similar case to deal with. On 31st December, a dairyman in Glasgow had lost four cows within an hour of having eaten bean meal prepared from Java beans. The chief symptoms shown were: excitement, trembling, twitchings, tympanitis, staggering, and death. He was having the meal analysed.

Prof. J. R. McCall enumerated several cases he had to do with similar to those described by the President and Mr. Begg. The worst case occurred in Dumfriesshire where a farmer had lost 26 Ayrshire dairy cows within half an hour after being fed with bean meal made from ground Java or Burmah beans. He had been investigating the matter, and carrying out feeding and other experiments, and so far as he had gone the results strongly indicated that Hydrocyanic or Prussic acid—probably existing in the beans—was the cause of the mischief.

## THE CIVIL VETERINARY SURGEON ON ACTIVE SERVICE.

By Robert G. Anderson, M.R.C.V.S., Cupar Fife.

Mr. President and Gentlemen,—The subject is one that offers scope for a lengthy address. In treating it from one point of view, which has nothing of the descriptive in it, I hope to observe limits which will leave your patience untaxed.

An apology I have to make to a Society existing for very practical purposes, is that my treatment has nothing of the useful in it.

In no wise are my remarks of the nature of a *resumé* of experience which civil veterinary surgeons might find helpful in circumstances of rel necessity for their services.

As what I have to say has reference to the South African war, now four years closed, and with mention of which most have become pretty well tired, any intrinsic interest possessed by the subject is somewhat latent in its appeal. For this I must accept the fate due to an unfortunate choice, and trust your generosity to supply in some measure what my treatment cannot command.

As an excuse for engaging your attention with a subject of belated interest and admitted to be without intention of practical value, I would urge recollection of the circumstance that though many of our profession entered that service and amid much difficulty and discouragement earned a worthy respect for their work in its aims and endeavours. No one has so far given that enlightenment to the subject which would, I believe, also show results to be more than adequate to the recognition of their possible value given to veterinary services.

Beyond a conversational remark that it was a roughish time and that professional work was somewhat impossible of showing up well, or that it was a very good time and there was not much need to bother about anything—such remarks having a purely personal reference, and being perhaps an indication of the attitude of mind of the speaker to his work—the civil veterinary experience of South Africa is a blank to all except those who took part in it. To fill in that blank is beyond the scope of a short address, but owing to its not being filled in one finds that the inevitable has happened, that opinions as to the value of veterinary work are held which are based on such doubtful evidence as to be wrong, and, in so far as they are a condemnation of that value, to be unjust.

It will be readily seen that in speaking of veterinary services in the field, one cannot do so to the exclusion of those of the Army Veterinary Department, but in that I have no claim or authority to speak for them my remarks are to be taken as applying to the C.V.S.

In that, however, my purpose is to show such services to have been profitable to the full extent of their employment and the recognition given to their value, that Department must be credited with a share more than proportionate to their numbers, as their special training gave its members individually a greater value.

Thus it is that the great loss of life and service of horses on active service being made a basis of judgment of the value of veterinary services; the evidence being that of results without reference to causes is worth looking at, especially from the point of view of these causes by a profession whose general good name is involved in that of such large representation as civil veterinary employment amounted to in South Africa. So that the purpose of my paper is an estimation of that work in the light of the causes for its necessity, and the circumstances in which it had to be conducted

As a first argument against the value of results it may be said that while an idea of gross loss may be made with some approach to correctness, approximately correct reports of veterinary work don't exist.

Owing to the overwhelming amount of work to be done and the place to do it, time was much too valuable, or one may say was much too short, to enumerate cases and their results. Thus large numbers of successfully executed cases are unrecognised, the unsuccessful allowed to dominate an opinion whose leaning should by recollection of the successful, have been towards appreciation.

Were, however, full reports of all cases submitted available, such would, granted even that they showed treatment to be largely unsuccessful, still be inadequate evidence as to the responsibility for loss belonging to the inefficiency of veterinary services. They would leave altogether out of account what indeed might easily be shown as the greatest factors of loss, the circumstances in which treatment had to be employed, and the relatively small number of men to do the work, and the unsatisfactory aid they had to depend on.

And those whose misfortune it may have been to be identified with this judgment while pleading extenuation in the circumstances and the sacrifices that had to be made to the requirements of military movements, may be excused for suggesting as more profitable than judgment on the value of their work, a consideration of the causes necessitating attention to cases in such numbers as to render any but the most cursory treatment possible.

That members of the profession who had no opportunity of judging for themselves, shared in these opinions is, I am afraid, too true. And to have it accepted not only as a popular tradition but believed by those of their own profession that their representative usefulness amounted to prescribing, and perhaps awkwardly administering the relief of a friendly bullet, lacked the sympathy their profession's reputation demanded.

Having stated in general terms the most culpable factors of loss, it seems unnecessary, so forcibly have some of them been brought home, to make any detailed nature of them.

I would however recollect, as of themselves accounting for a major part of the loss, the unsuitability of great numbers of the horses supplied, the unfit condition in which most were required to enter on the arduous work of a campaign, or should I only say a "trek" since many saw but a short advance before a fate, with nothing warlike in its features, overtook them; and that several diseases specially fatal to horses are endemic to extensive areas of South Africa.

But I have no intention to enlarge on causes of unsatisfactory results which are apt to be allowed to excuse a policy of no endeavour, because all endeavour can effect so little.

It would, I believe, be easy to establish the contention that great loss occurred from conditions of simple clinical importance, which veterinary skill might be supposed to suggest methods of prevention for, and does claim ability to cure.

The loss I refer to is not so much that of death as of service due to temporary disablement, and where a regiment is in constant motion so that sick and injured horses cannot be retained and have to be replaced, such disablements have all the effects of loss by death to that regiment if not to the whole forces. Indeed when far removed from depôts as hospital or means of treatment, many amenable cases do in reality through the sacrifice necessary to military demands become items of loss by death. So that while veterinary skill may stand acquitted of responsibility for loss attaching to conditions over which it had no authority or control, there is this loss due to conditions of comparatively simple nature seeming to afford evidence of culpable shortcoming or ineffectiveness of veterinary work in the field, for it is to the case of the veterinary surgeon attached

to a regiment that I wish to be understood to specially refer.

It seems a curiously contradictory statement to make but it is in keeping with the truest conception of the matter that while in the field veterinary services are of small value, it is just in the field that the veterinary surgeon may most surely prove the value of his knowledge.

Given sound fit horses to begin with, it is easily understood, that veterinary skill applied to the maintenance of that fitness is a more valuable asset of efficiency than restricted to the treatment of cases which in their origin and cause are not sought to be influenced by that skill. It is purely a matter of point of view of what use the knowledge he possesses is to his regiment, that which minimises this value is of regarding the veterinary surgeon in the light solely of a physician to the sick ; the other, which I venture to believe shows a truer sense of the essentials of value, is that which secures his having a controlling hand in the affairs of every day management of the horses. I do not go so far as to say that the veterinary surgeon's knowledge given full and free scope would obviate all sore backs and other simple ailments which cause much inconvenience. Granted that his attention might fail to prevent any, the principle of that attention would at any rate have saved most of such from being causes of extensive temporary l ss, as it would have secured their treatment when recovery with available means and in existing circumstances was possible.

In that a daily inspection of the horses is a duty of the veterinary surgeon, and recommendations based on this are his privilege, it may seem that his knowledge has full opportunity for its application and valuation of its value. I submit that the difference between this privilege to make recommendations and direct authority is just as great as to almost show utter want of appreciation of the value of that knowledge. Appreciation of advice is shown by its being sought. Unasked counsel is apt to be regarded as interference ; at any rate it is unlikely to receive enthusiastic approval and authoritative support.

Apart, however, from that philosophical consideration there are some very natural reasons to show how recommendations fail of giving veterinary knowledge the best and most certain chance of proving their worth. The circumstances of daily life on active service explain, what, in view of an imposed duty of daily inspection, must seem a shortcoming. Day after day a start is made before sunrise and continued till late afternoon, and the remaining few hours are fully taken up with attention to known cases as those whose serious condition secures their being brought for treatment, so that opportunity for general observation on which to base recommendations is slight. From a consideration of these cases he may form an opinion as to causes operating to produce a train of cases, and on such base a recommendation.

But if we consider that the cause may be due to a change in the general management of the horses, as a change of feeding may be, or a disregard of advised precautions either by an irresponsible officer who "doesn't see the force of such," or by the general slackness of discipline somewhat characteristic of active service, as far as many details of attention to horses go, the most energetic veterinary officer cannot hope by recommendation to effect such improvement. If he is not consulted beforehand on intended changes his position makes it unlikely that he will know of the intention. So his recommendation comes too late, being not simply the expression of a clear principal of management but a reproof, it has a reception due only to its official nature ; but this is very different from the enthusiasm and consistency which would characterise action based on a generous recognition by authorities of the value of his advice, which recognition would show itself without fear of creating a sense of overwhelming importance in the veterinary staff by insisting on the veterinary officer being consulted.

And where disaster is due to an individual laxity of interpretation of issued instructions a fresh recommendation by the veterinary officer having all the appearance of fault-finding is not the likeliest means of securing willing reform, and for the perfect performance of duties attaching to horse treatment willingness is a first essential.

There is another and somewhat opposite feature of such making of recommendations. It gradually assumes the form of an imposed duty, almost directly in proportion as the veterinary officer shows evidence of his appreciation of it.

Now in attending to horses—to all those little things which are rather the expression of an appreciative solicitude for their welfare than duties which service dictates—any suspicion that responsibility for neglect belongs to another, produces that neglect, and is so far fatal to the welfare of the horses that no full and willing acceptance of that responsibility by another can possibly redeem its effects. And those conditions of simple clinical importance which veterinary skill professes ability to remedy, but which nevertheless occurred in such numbers as to cause incalculable loss of service of horses and so left that skill open to having its value discounted, such conditions do not readily lend themselves to embodiment in recommendations to Commanding Officers. They are such that the greatest enthusiasm on his part might totally fail to affect. In short, they are such as depend for their prevention and cure in war circumstances on constant unceasing care, the expression of an intelligent sympathy on the part of those who have the direct supervision of the horses and a willing endeavour on the part of those who use them.

Here, in war circumstances and demands, prevention should be the aim, and so much more valuable is this than cure that the words are hardly comparative terms as good and better. For if this spirit of care which means prevention is not abroad, it is safe to assume that cases, say of sore backs and withers and injuries to feet and limbs, will not be brought for treatment when such has prospects of cure and the comparison comes to be between a negative quality or cure and a positive quantity of prevention.

To present the veterinary officer in the field with his limited means of treatment with beautiful specimens for major operations may, to a philosophic mind, seem a compliment to his skill. In that such, after the most skilful operation require time for their recovery, so that a visit to a depôt is necessary, or in other words, so that they are lost to the regiment, the veterinary officer may be excused for showing small appreciation of this flattery. That his feelings don't find expression in recommendations to commanding officers may be out of sincere sympathy to a very much harassed man—it is as likely to arise from a sincere conviction that such could touch no more than the fringe of the trouble.

It would almost seem that a comparison of the sphere of the medical officer has in its acceptance as a guide resulted in a wrong appreciation of the value of veterinary knowledge in its relation to a regiment's maintained efficiency. The medical officer's care is directed almost entirely to the actual treatment of the sick and injured and the prevention of endemic disease. The veterinary surgeon will find his energies well occupied in a similar manner, but while the doctor's care may be said to end there, his subjects having intelligence to secure their own welfare so far as it is likely to be affected by the ordinary circumstances of this life, it is just the effects of ordinary wear and tear that will supply the V.S. with the most of his cases. The practical application of this is, that in order to influence the loss arising

from those injuries due to wear and tear, the veterinary officer requires a fuller recognition than is given to his qualities as a physician pure and simple.

It is not my purpose to say in what higher rank and better complement of staff and material that recognition should show itself. We believe that somewhat tardily this is being given. I have only to point out that the lack of such, in other words a want of realisation of the extremely high value of veterinary advice to the maintained efficiency of a regiment may account for much of that loss which seems chargeable to veterinary shortcomings.

And as it may be supposed that the veterinary surgeon is not employed out of any generous desire to enrich him or his profession, and not from purely humanitarian views, but out of some conception of possible value in his services, it is owing to the money provided to give him that position and those facilities which will enable him to realise his fullest value.

In this I trust not to seem to say that veterinary officers require a rank entitling them to press certain considerations for the animals when military demands for their service, which must always have possibilities of sacrifice in it, are made to the restriction of that service.

My point is:—That there is an incalculable loss of service and life of horses due to condition of comparative simplicity, the results of every day wear and tear, and prevention of this loss should have every scope for its practice. And this is I believe synonymous with a full recognition of the value of veterinary services. Without the direction of skilled knowledge the best intention on the part of others fails of effect in improvement.

I believe it would be easy to instance cases where amateur intention and attention were not always in line to the benefit of the horse. We now hail with appreciation and congratulation the granting to veterinary officers of substantive rank and several other forms of recognition which we hope have a material shape and not only an honorary intention, but the fact that during the late war veterinary knowledge had small authority and no appreciation of its highest value explains, without need to charge that knowledge with shortcoming, much of the loss with which otherwise veterinary attention might be blamed for not averting—if not in its causation, then in its course.

Another sidelight by way of explanation of the demands which had to be made for remounts, which demands might possibly be employed to reflect on the horse management of a regiment. It is on the remount supplied.

A making up of numbers to a certain strength by no means meant that a clean sheet was given the regiment, and it could only be in the office in which these horses figured in fresh numbers that such credulity existed. One could only call many of them "other" horses, something very different from fresh horses. They were, as we may say, fresh faces, though their individuality was more evident in a sore which called for attention, or a limp which pled for consideration.

These considerations are deserving of note even where veterinary officers were specially trained, and whose horses were in the care of those with an appreciation of the value of care.

When the veterinary officer was a civilian with, for a time at least, a confused view of the value of his knowledge to his regiment, and others in charge were without practical training in horse management, it will be seen that veterinary knowledge was likely to fail in realising its full value. And I have no hesitation in saying that had care for the horses, such as is based on an appreciation of their value and a practical acquaintance with their needs been generally existent this value would have been credited to him, and found to be a valuable asset of efficiency.

I believe I have said enough to illustrate the subject from one point of view, that of estimation of the value of veterinary knowledge to an army. If, in the late war, they were as a drop in a bucketful, the drop is worth taking note of, especially as regards its quality. For it is not as some coarse humorists would say a drop added to the bucket, but one of a different sort, and charged with properties to purify—that some amount of precipitation went on, was due to the nature of the bucket contents. And if my stating of the case as to one factor of much loss of service of horses is correct, and a profitable deduction can be made on it, it is that the properties of the drop be looked into, and properly valued, so that in future this element of prevention and cure be employed not in grudging droplets but in volume and with force—the force that can only come from a just recognition of its inestimable value.

A grumble at what is called red-tape is of course the prescriptive right of a civilian. It is not with the unanimously condemnatory and generously expressed view of the matter that I wish to speak. It is with quite an opposite effect of red tape, an effect which shows it to belong to the category of things very human. While certain forms say this or that can't be got or done, or can't be got or done except in such a way or through such a channel; so long as certain forms are adhered to almost anything may be done.

Applied to the subject of the loss of horses one sees that for want of a certain recognition of veterinary services which means freedom and authority of action, much loss is incurred.

The veterinary surgeon may, and probably does, risk much disregard of stereotyped methods which interfere with his work, but, in that the causes of the major part of preventable loss rest with others for their prevention, which others may be steeped in the spirit of red-tape procedure, he cannot much influence that loss at its source. His amazement is great, however, on discovery that for all this loss a very simple form satisfies all questions—he finds a veterinary certificate is as good as a horse any day.

Now on active service, owing to inability to give sick horses the attention they require, and movements making it impossible to take them along at the necessary rate of speed and for many days on end, it is easily understood that many horses have to be sacrificed, and unless the veterinary officer by great energy and earnestness shows that while such sacrifices may be numerous they are not made in any spirit of wantonness, he will find this accounting by a simple form for losses regarded as his *raison d'être*, by a very easy process of transition, or rather of chopping off, his certifying of necessity for death is unheeded and the necessity decided by others.

That horses were lost because of this in the late war cannot be doubted. A single body, no matter how willing the spirit, can only be in one place at a time, and horses in all cases of "falling out" could not be seen by him. And when a corps had no veterinary surgeon can it be doubted that much needless destruction occurred. And where a person, without the most primitive claims to qualification occupied the position of veterinary officer, as occurred in some colonial corps, and had the authority to certify the necessity for destruction, or satisfy all forms by a certificate when practised by others a fresh explanation of much avoidable loss is revealed.

Gentlemen, I thank you for your patient hearing, and trust not to have imposed on the generosity which I had to rely on for my paper having a reception of interested attention.

I have not given you a subject for scientific discussion, but there may be much to criticise. In that such will

come from a broader conception than I have perhaps shown, I shall be most delighted to hear it.

---

The PRESIDENT proposed that the discussion on Mr. Anderson's paper be left over until the next meeting as the hour was late, and a vote of thanks to the essayist was heartily accorded.

## SCOTTISH METROPOLITAN VETERINARY MEDICAL SOCIETY.

A meeting was held on Thursday, October 25th, at 2.30 p.m., there being present the following members :— Mr. John Hutton, President, Principal Dewar, Prof. O. C. Bradley, Messrs. Rutherford, Riddoch, and Thomson, all of Edinburgh ; Aitken, Dalkeith ; Peddie, Dundee ; Robertson, Selkirk ; Cameron, Berwick-on-Tweed ; and the Secretary.

The minutes of last meeting were read and confirmed.

Letters of apology regretting inability to be present were read from the following members : Messrs. Baird, T. M. Inglis, John Connochie.

Office-bearers were then appointed for the ensuing year as follows :—

*President.*—Principal Dewar.

*Vice-Presidents.*—Messrs J. Hutton, James Peddie, John Connochie, John Aitken, Jun.

*Hon. Secretary and Treasurer.*—J. W. M'Intosh.

## THE NORMAL UDDER OF COWS AND ITS RELATION TO BACTERIA.

By JAS. HENDERSON, M.R.C.V.S.

Before bringing this paper under the notice of the Association, I must explain that by unforseen emergency your honorary secretary, finding himself disappointed of a paper which had been promised to him for this meeting, asked me at somewhat short notice to provide a paper opening a subject for discussion.

The normal udder of cows is a subject in which I have been deeply interested for some time, and is one upon which very divided opinions have been entertained. The importance of the subject must be my apology for bringing before you matter which has already appeared in *The Journal of Comparative Pathology and Therapeutics*, and for quoting at length therefrom. The paper in question was entitled "A Contribution to the Study of Mastitis in Cows," and appeared in the March number of last last year (1904).

While examining a number of udders affected with mastitis, with a view to determining, if possible, the etiology of the disease, I found, besides the predominating and presumably pathogenic micro-organisms, others which, so far as tested, were not pathogenic to laboratory animals. These apparently non-pathogenic bacteria so constantly recurred in the diseased udders that it was deemed necessary to examine bacteriologically some healthy udders for purposes of comparison.

Five normal udders of cows which were at time of slaughter yielding milk, or which had recently been disused as milkers, were examined by the following method. Two quarters on the same side were used. The skin on the dissected side was thoroughly asepticised with Lysol, alcohol, and ether, and the incisions were made with a knife which had been heated at a bunsen flame. Cultures on various media were at once made from the exposed ducts, or from the tissue walls of the incision. Smear cover-glass films were also made from the same locations. In the case of the first normal udder examined all the inoculated tubes of media exhibited colonies of bacteria. They were few, certainly, but well marked. Although their presence was suspected the actual finding of them had in it something of a surprise. In subsequent examinations of normal udders fellow workers in the laboratory kindly consented to make cultures from them as a check upon my own, and these control cultures also exhibited colonies of bacteria. In this way the presence of bacteria in the normal udder became established in this investigation.

All of these udders exhibited staphylococci ; three of them exhibited pseudo-diphtheritic bacilli ; two exhibited streptococci. Other micro-organisms occurred also, and there is no doubt that a more exhaustive examination would have revealed yet more of them. This may appear to be an extensive list, but a more accurate idea of the actual numbers of bacteria existing in the normal udder may be gathered from a consideration of the number of colonies, and the numbers exhibited in the smear films. Taking the films first, it must be admitted that the organisms had to be very carefully sought for in order to be demonstrated. In many cases the search proved futile. In the case of the colonies seen in tubes of solid media their numbers again were few, but the numbers of the colonies exhibited seemed to depend upon the location in the udder from which the cultures were made. It must here be stated that no cultures were made from a position inferior to the opening of the milk ducts into the milk cistern ; none were made from the teat itself. Cultures made from the large milk ducts at their opening into the cistern exhibited *more* colonies than those made from superior locations. Those made from the middle third of the udder exhibited distinctly fewer colonies than those already mentioned. Still fewer colonies were found in cultures made from the upper third, and the media tubes inoculated from this region frequently remained sterile.

If we admit the probability that each colony originated with a single micro-organism then we are forced to the conclusion that the numbers of micro-organisms in any one place are relatively not very large This becomes the more striking if it be recalled that in the diseased udder their numbers are relatively enormous.

The bacterial flora of the normal udder appears to be located mainly in the milk ducts, where they appear to exist simply as non-pathogenic epiphytes upon the mucous membrane.

In order to discover, if possible, at what stage in the life history of the cow these micro-organisms gained access to the internal udder, the udders of two heifers were examined, and the precaution of having parallel check cultures was in each case maintained. One of these udders was taken from an unimpregnated heifer under two years old, and the other from a heifer about two and a half years old, which had carried a calf for about three months. In both cases all cultures taken at and above the milk cistern remained absolutely sterile. It is clear, therefore, as far as this investigation goes, that it is only in females in which milk escapes from the udder that bacteria are found in the internal udder.

Thus far I have simply stated the results of this investigation, and it is now that I come face to face with the time-honoured but erroneous belief that milk as drawn from the cow is pure and aseptic.

I have found extremely meagre references in literature as to the freedom or otherwise of the internal udder from bacteria. Swithinbank and Newman, in their book called the "Bacteriology of Milk," include the following sentence in their recommendations to dairymen (p. 524)—"Milking should be done quietly and thoroughly, and the first few streams from each teat thrown away, for such milk is often somewhat watery, and always contains the air bacteria which have gained access to the teat during the interval since the last milking." Here, then, is the first statement by English writers, of which I am aware, to the effect that bacteria *do* gain access to the internal udder.

Otto Uhlmann (1) in 1903 writes the following:—"Until recently it was generally accepted that the secretion of the milk gland was free from bacteria, unless an ascending invasion through the teat canal caused a continuous infection of the secretion and gland itself with bacteria. That milk is practically never germ free has been established by different investigators.

The rationale of this has been given by bacteriologists who, like Von Freudenreich, made use of fresh sterile milk in their researches, and who spared no pains to get, if possible, such milk. The natural sterility of milk according to the work of Barthels, Ward, Von Freudenreich, Burri, Boekhout and Ott de Fries, Backhaus, and in more recent times Lux, is now definitely not to be regarded as a condition which is ever really present.

With the establishment of this fact, however, comes the question by what avenue the bacteria gain access to the gland. It is self-evident that two possible avenues present themselves—the blood stream and the teat canal, or both. It is the task of research to investigate the significance of these possibilities.

I will now endeavour to state exactly what is the condition of the teat canal with regard to its bacterial flora, because the theory of invasion through the ductus papillaris has been up to the present time in favour. It has already been formulated as being acceptable in view of the causal requirements of the case. Kitt (2) compares the above canal to a capillary tube reaching from the exterior of the teat up to the milk cistern. This column of milk forms a convenient highway for bacteria advancing from the contaminated outside surface to the milk stored in the cistern."

When we turn to the literature of mastitis, additional evidence for the establishment of this contention is forthcoming.

In Leblanc's (3) volume on "The Diseases of the Udders of Domesticated Animals," lately translated into English by Colonel Joshua Nunn, the following occurs on page 72:—"M. Nocard has first established that the teat canal could serve as an avenue of entrance for pathogenic germs. This fact threw a vivid light on the pathology of mastitis. It established that the infecting agent has no need to penetrate the udder by abrasion of the skin, but that it has at its disposal a way of entrance always open and at hand, viz., the teat canal. This represents a capillary tube constantly moistened by milk, and consequently in excellent condition to serve as a means of conveyance for the micro-organisms which thus find 'a culture medium, and a road already made to reach the sinus.'—(Kitt).

It thus becomes easy to understand the evolution of mastitis. The infected sinus represents the vestibule of the milk ducts in the same way as the pharynx represents the entrance to the respiratory and digestive systems. Just as bronchitis frequently succeeds pharyngitis, so mastitis often follows infection of the milk sinus. Urethritis is a constant menace of orchitis and of cystitis, and the infection of the milk canal may have for the udder consequences as serious.

It is no longer necessary to believe that the milk sinus of an udder which acts normally is exempt from germs. Most authors who have written upon bacteriology say that to obtain milk free from germs it is sufficient to draw it aseptically from the udder. That is absolutely an error.

Of sixteen healthy cows examined under thoroughly aseptic conditions Guillebeau observed nine times infection of the teat canal. Zochokke has written that the sinus and the canal are constantly affected, like the mouth for example. This is certainly a manifest exaggeration, and the truth lies between the two. Six times out of ten we have found the milk sinus infected in the case both of the cow and the goat. Aseptic conditions were secured by means of superficial cauterisation, the udder being removed.

In the majority of cases the habitual inhabitants of the sinus were found to be diverse varieties of staphylococci—S. albus, S. aureus, S. citreus. The variety which predominates is the aureus, but the three varieties can be found side by side.

We do not attach any considerable importance to the presence of these germs in the vestibule of the milk ducts, because their pathogenic action has never been established. There is, however, room to think that if they are not the agents of mastitis, they contribute to increase the gravity of the malady, and perhaps to cause the formation of mammary abscesses. Normally then the milk sinus is frequently inhabited by a considerable number of microbic colonies."

These investigators confidently affirm that bacteria which have ascended by the teat canal are normally found in that canal and the sinus to which it leads. The present investigation further proves that they ascend the milk ducts also.

If the immediate environment of a cow's udder be considered it will be seen that it teems with microbes; those of the air already mentioned, those of the dust, the bedding, the excrement, and the hand and person of the milker. Those found in the udder by the writer were just such as might be expected in such an environment. The variety of micro-organisms found in the normal udder indicates that it has no selective power, but that the bacteria found there depend wholly upon the accident of their advent and their power to maintain their existence. It is inconceivable that they can assist in milk production, yet they do not seem to be prejudicial to this function unless under special circumstances. They are apparently simply epiphytes upon the mucous membrane of the milk sinus and ducts, they are unbidden and unwelcome guests. That mucous membrane offers considerable resistance to microbic action is well known, and that of the milk sinus and ducts appears to be no exception. Some of these microbes, such as streptococci and the pyogenic staphylococci, are usually recognised as being pathogenic in character. To test their pathogenic activity in four cases of normal cows' udders experiments were made upon guinea-pigs. From an incision made in the neighbourhood of the milk sinus in which some of the large ducts were cut, the exuding fluids were aspirated into a syringe and 2 c.c. of them were intraperitoneally injected into guinea-pigs; and apparently in no case were these animals inconvenienced in the slightest degree.

On the other hand the conditions which render the udder peculiarly liable to bacterial attack are clear. It is a very highly specialised organ wrought up to its full capacity for milk production; and the milk after its secretion into the acini and still more when it is dammed up in the milk reservoir, may be considered as a detached or semi-detached product which has, in a measure, passed from the vital control of the gland, though still contained in it. One common predisposing cause of mastitis is the lowering of the udder's vitality from any cause, two of the most frequent of these being exposure to cold draughts, and excessive milking. Probably the most frequent cause of mastitis is the ascent by the teat canal of microbes having an exalted virulence. This is followed by an acute and rapid general invasion. When this occurs the epiphytes existing in the udder normally, aggravate the lesion, especially those of a pyogenic order as has already been pointed out by Leblanc.

(1) "Centralblatt für Bakteriologie, Parasitenkunde, und Infektionskrankheiten," 30th Nov., 1903, p. 224.

(2) "Lehrbuch der Pathologischen Anatomie der Haustiere," 2nd Aufl., bd. I., 1900, p. 201-207.

(3) "Les Maladies des Mamelles chez les Animaux Domestiques," par P. Leblanc, 1901, p. 72.

I may here remind you that the bacterial infection of the udder may be of central origin ; bacteria may be carried thither by the blood and lymph streams, as in some cases of tubercular mastitis.

I should like to direct your attention briefly to the colostral period of lactation. It lasts from a day or two before parturition to a week or more afterwards. It is a period of physiological engorgement of the udder, which is in itself a source of weakness. Milk is an excellent medium for the growth of bacteria, and its reaction ordinarily is neutral. The reaction of colostrum on the other hand is alkaline, and it contains a much higher proportion of albuminoids and other solids than does milk. Colostrum is therefore, at least theoretically, still more suitable as a medium for the growth of bacteria. These considerations may account for the fact that more cases of mastitis occur about this period than at any other.

It is conceivable, although it is not yet proved, that microbes of a low degree of virulence, such as the staphyl cocci and streptococci found in the normal udder, may be able to overcome the inhibitory power of the mucous membrane of the sinus and milk ducts when the vitality of the udder is lowered from any cause, or during the colostral period, and they may have the power of inducing under these circumstances an inflammatory condition of the gland.

In conclusion, I may say that I am aware that many important issues in regard to this subject have not been touched on by me, and that the subject teems with controversial possibilities, but I hope that some of the deficiencies of this short paper will be made good in the discussion which it may evoke.

## Treatment of Cancer.

At the public assembly of the Academy of Medicine, at Brussels, on Jan. 27, the result of the work of Dr. Jacobs regarding cancer was announced by Prof. van Ermenghem, who declared that cancer is now proved conclusively to have a bacterial origin. Dr. Jacobs concludes that the treatment must be by vaccination. He declares that the treatment of cancer has ceased to be a blind experiment, and enters into the scientific domain, becoming positive. By a long series of experiments on the composition of the blood, Dr. Jacobs claims to have found the laws governing the administration of a cancer serum which is derived from the cancer microbe itself. The serum must never be applied save by the most expert hands. The announcement has created intense interest in medical circles.—*Daily Telegraph.*

## Cattle Poisoning at Drumbuie.

At a meeting of Thornhill District Committee on Jan. 30, the cattle poisoning case at Drumbuie, Sanquhar, was discussed. Mr. A. J. M'Intosh, the county veterinary inspector, reported that the cause of death was poison, which the animals got in their food, hydrocyanic acid having been found in the samples of meal and in the contents of the viscera sent for analysis. It appeared that the poison developed when the bean meal came in contact with the gastric juice and heat of the stomach. The animals were buried with all the care and in the same way as if the deaths had been from a contagious disease, and the byres had been whitewashed and disinfected.—*The Scottish Farmer.*

## DISEASES OF ANIMALS ACTS 1894 TO 1903 SUMMARY OF RETURNS.

| Period. | Anthrax. | | Foot-and-Mouth Disease. | | Glanders (including Farcy) | | Rabies. Cases Confirmed. | | Sheep Scab. | Swine Fever. | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Out-breaks | Animals. | Out-breaks | Animals. | Out-breaks | Animals. | Dogs. | Other | Out-breaks | Out-breaks. | Slaughtered * |
| GT. BRITAIN. Week ended Feb. 3 | 15 | 25 | | | 22 | 46 | | | 29 | 23 | 82 |
| Corresponding week in 1905 .. | 16 | 22 | | | 20 | 47 | | | 54 | 11 | 8 |
| Corresponding week in 1904 .. | 26 | 36 | | | 23 | 57 | | | 98 | 19 | 146 |
| Corresponding week in 1903 .. | 16 | 17 | | | 22 | 45 | | | 91 | 19 | 68 |
| Total for 5 weeks, 1906 .. .. | 88 | 115 | | | 129 | 231 | | | 126 | 96 | 392 |
| Corresponding period in 1905 .. | 102 | 175 | | | 119 | 219 | | | 257 | 58 | 178 |
| Corresponding period in 1904 .. | 109 | 142 | | | 125 | 276 | | | 510 | 141 | 860 |
| Corresponding period in 1903 .. | 77 | 122 | | | 94 | 197 | | | 476 | 144 | 736 |
| IRELAND. Week ended Jan. 27 | .. | .. | .. | .. | .. | .. | .. | .. | 12 | .. | .. |
| Corresponding Week in 1905 .. | .. | .. | .. | .. | .. | .. | .. | .. | 15 | 3 | 4 |
| Corresponding Week in 1904 .. | .. | .. | .. | .. | .. | .. | .. | .. | 51 | 7 | 65 |
| Corresponding Week in 1903 .. | .. | .. | .. | .. | .. | 1 | .. | .. | 23 | 2 | 8 |
| Total for 4 weeks, 1906 .. .. | .. | .. | .. | .. | 1 | 4 | .. | .. | 62 | 1 | 14 |
| Corresponding period in 1905 .. | .. | .. | .. | .. | 2 | 4 | .. | .. | 75 | 7 | 18 |
| Corresponding period in 1904 .. | .. | .. | .. | .. | 1 | 1 | .. | .. | 109 | 16 | 237 |
| Corresponding period in 1903 .. | .. | .. | .. | .. | .. | .. | .. | .. | 82 | 3 | 34 |

Board of Agriculture and Fisheries, Feb. 6. 1906.

Epizootic Lymphangitis: Week ending Jan. 27, 1906, 1 case.

Department of Agriculture and Technical Instruction for Ireland, (Castle Street), Dublin, Feb. 1, 1906.

NOTE.—The figures for the Current Year are approximate only.

* As Diseased or Exposed to Infection.

## THE M'FADYEAN TESTIMONIAL.

The following subscriptions have been received since those last acknowledged:—

| | | | |
|---|---|---|---|
| Mr. J. H. Wynne | 21/- | Mr. R. Hughes | 21/- |
| Alf. Broad | 21/- | Jno. Malcolm | 105/- |
| Ed. Batt | 21/- | Geo. Holtham | 21/- |
| T. K. Ramsay | 63/- | Percy Howard | 21/- |
| H. Thackeray | 21/- | Jas. B. Manuel | 21/- |
| A. Dobbyn | 21/- | Jas. Thomson | 21/- |
| Jas. Borthwick | 21/- | Major Meredith | 20/- |
| H. C. Wilkie | 21/- | A. N. Foster | 10/6 |
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### THE SIR JOHN M'FADYEAN FUND COMMITTEE.

The Committee is now augmented by the following :—

| | |
|---|---|
| Mr. P. S. Falshaw (Singapore) | Mr. W. H. Brown |
| Capt. J. T. Coley (India) | Col. J. A. Nunn (South Africa) |
| Mr. R. Phillips Thomas (Khartoum) | Mr. J. B. Collyer (Natal) |
| | B. D. Pierce (U.S.A.) |

### FREE IMMUNISATION AGAINST HORSE SICKNESS BY THE TRANSVAAL GOVERNMENT.

Unquestionably the Transvaal Government is doing a useful work in combatting stock disease in the Colony. The Government's efforts in this direction are pre-eminently practical in character, the latest effort, the free immunisation of mules, especially so. A notice in the current issue of the *Transvaal Government Gazette* states :—

It is hereby notified for general information that Government inoculation stations for the immunisation of mules against horse-sickness will be established about the middle of December. 1905, at Pretoria, Pietersburg, Lydenburg, Piet Retief, Barberton, Middelburg, Nylstroom and Zeerust. [A separate notice includes Rustenburg in the list.]

Owners of animals desirous of having their animals immunised are requested to make early application to the District Veterinary Surgeon at these towns, giving particulars of the number of a imals which they intend to bring forward for treatment.

A charge of 30s per head will be made for each animal immunised, and compensation will be paid for any animal dying as a result of inoculation while under treatment, according to a valuation fixed by the District Veterinary Surgeon, which will not exceed £15 per animal, and which will only be paid provided conditions imposed by the District Veterinary Surgeon are duly complied with.

Animals to be immunised must be brought into town for treatment, and owners are expected to make their own arrangements for accommodating, feeding, and attending to animals while under treatment, or if animals are received into a Government depot, where such is established, they will be called upon to pay the actual cost of feeding and attendance.

The average percentage mortality amongst animals inoculated so far has been between three and five per cent.

Animals immunised will be under treatment for about three weeks, during which period they cannot be worked.

Where animals belonging to different owners are brought together for immunisation, the District Veterinary Surgeon may test them all with mallein should he consider this advisable before proceeding to immunise, in order to exclude any animal which had been exposed to glanders infection, and which might act as a centre for the spread of this disease

The malleining of the animals will be carried out free of charge.—*South African Mines.*

## GALWAY COUNTY COUNCIL.

At a meeting of the Proposals Committee of the Galway County Council, held on Tuesday, Jan. 30 :—

### THE LADY VET.

A letter was read from the Agricultural Department stating that they could not give their sanction to the appointment of Miss Cust as Veterinary Inspector of Mount Bellew Rural District, and any payment made to her would be subject to a surcharge.

The Chairman proposed a resolution pointing out that the Department had the same powers in this matter as the Lord Lieutenant under the L.G. Order, 1899, and as there was no other qualified person for the position who would consent to live within the district which was a very populous one, the people would be compelled to go 20 miles for a Vet's services. Miss Cust also possessed, in a marked degree, a knowledge of veterinary science as shown in the practical work she did in treating cases within the district, and the County Council, therefore, desired to adhere to their decision in appointing Miss. Cust.

Mr. Kennedy seconded the resolution.

Mr. Loham said he opposed the appointment of Miss Cust before, and therefore could not stultify himself by supporting the Chairman's resolution and therefore dissented.

Mr. Byrne said that the Chairman acted under an impulse of gallantry, and they should not therefore obstruct him. Although they were in the minority before they ought to be gallant enough now to agree to the resolution.

Mr. Griffin did not at all agree with Mr. Byrne as Miss Cust had not the qualifications advertised for.

The Chairman interrupted Mr. Griffin, and the latter asked to be allowed to go on as he did not interrupt the Chairman with his long resolution. Continuing, he then said if some members of the Council whom he heard speaking on the matter expressed their private opinions they would call the whole thing a ridiculous farce.

The resolution was passed, Messrs. Ryan, Lohan, and Griffin dissenting.—*The Connaught Champion.*

## ELECTION ADDRESS.

*To the Fellows and Members of the Royal College of Veterinary Surgeons.*

Gentlemen,—I have had the pleasure of serving you on our Council now for fifteen years. If you approve of my services and wish me to remain on the Council I shall esteem the favour of your vote and influence at the coming election.

Yours faithfully,

J. FRASER.

## ARMY VETERINARY DEPARTMENT.

Extract from *London Gazette*,

WAR OFFICE, PALL MALL, Feb. 2

The undermentioned gentlemen to be Lieutenants:—

W. H. Walker, vice R. Porteous, seconded for service under Colonial Office.

A. L. Horner, in succession to Lieut.-Col. A. F. Appleton, promoted.

R. W. Mellard, vice A. S. Head, seconded for service with the Egyptian Army.

J. O. Andrews, in succession to Major S. Duff-Gillespie, placed on retired pay.

W. I. Macauley, in succession to T. E. W. Lewis, deceased.

R. S. Audas, in succession to Lieut.-Col. C. E. Nuthall, promoted

## OBITUARY.

CHARLES MOIR, M.R.C.V.S., Cardiff.

Graduated, Edin: April, 1872.

Death took place on Friday, Feb. 2nd, at Stanley Place, Paisley, N.B., whither he went to reside about four months ago.

Mr. Moir was 76 years of age, and had resided in Cardiff for over 43 years. He was the son of the late Mr. James Moir, merchant, of Paisley.

The deceased held the position of veterinary surgeon to the 1st Cavalry Brigade, Turkish Contingent, and served during the latter part of the Crimean War. He was for many years veterinary surgeon and inspector for the county borough of Cardiff and the county of Glamorgan, which appointment he relinquished some time last year. Some years ago he took Mr. J. L. Perry into partnership. He took a great interest in the Conservative cause, and was for many years the Chairman of the Cardiff Conservative Club, a position which he filled with courtesy and success. When he resigned the position he was presented by the members with a token of the respect and appreciation in which he was held. Mr. Moir, of a genial and kindly disposition, was held in high esteem by all who knew him. He was appointed veterinary surgeon under the Cardiff Corporation as long ago as January 1, 1864, and received the post of meat inspector in 1897.

Mr. Moir had suffered for a number of years from diabetes, and this chronic disease and advancing age were the causes of his death. He was a widower, his wife, who died just over six years ago, was buried at Liverpool, and Mr. Moir will be interred in the same grave.

SKELTON.—On Feb. 1, at Lime Tree House, Leyton, Essex, Sarah Jane Weightman Skelton, eldest daughter of the late Richard Skelton, aged 52.

## CORRESPONDENCE.

### CONFIRMATORY MEETINGS OF COUNCIL R.C.V.S.

Sir,

Mr. Cope's suggestion to reduce the number of members forming a quorum of special meetings of Council, might—as has been before mentioned, I believe, by Mr. Fraser—be more easily remedied to the satisfaction of the majority of the Council, if these confirmatory special meetings of the Council could be obviated altogether, by allowing all Members of Council to vote *by proxy* on subjects that the Council have already approved of at their general meetings. This would give the Members living in the provinces, as well as those in town, the privilege of recording their approval (or otherwise) without the necessity of attending such formal meetings.—Yours faithfnlly,

GEO. A. BANHAM.

### OPTIMISM AND PESSIMISM.

Sir,

Mr. Mayall is a good "forward" and "keeps the ball rolling," as he intends. He is. or used to be, a great stickler for professional etiquette, but I hae me doots if "Onlooker" hasn't somewhat shaken that youthful faith in sublime ideas which marked Mr. Mayall's earlier correspondence, and also marked him out from the crowd of indifferents who say to themselves "*Après nous le déluge.*"

The 150,000 horses have passed into the hands of a larger number of owners no doubt, and, so far as our little profession is concerned, will probably yield it more remuneration than they did when in the possession of companies, whose salaries to veterinary surgeons might average a shilling per horse per annum; no great source of joy perhaps to the displaced M.R.C.V.S. who has acquired company manners, and thereby unfitted himself for the competition of ordinary practice.

The horse and his great utility, beauty, and value for work and pleasure, is what has made our profession, and if he declines we must decline also. It is the value of human life that gives our medical brethren greater importance in the clients' eyes than us. If we are reduced to being mere dog and cat doctors, a few of us with oleaginous tongues, and a temperament that suffers fools gladly, may make a living, nay a fortune, but it is by the same vulgar arts as those of the sellers of women's finery. While the newer methods of traction have come as legitimate competitors, which it is utter folly to decry and worse to ignore, we must yet remember that we have been digging our own graves for a long time; taking up an utterly illogical position for which the public does not thank us, or if it notices us at all, it is but to laugh at our folly in crying for the moon, while refusing the green cheese at hand. We have preached preventive medicine, and taught hygiene, and educated the public to a disbelief in drugs, while passing internal laws preventing us from advertising either our skill or our medicaments, and in the meantime the quack medicine vendor has had a free hand to "dump" his factory-made articles into our rural districts—a condition of things which, on a small scale, resembles the great controversy with its head quarters at Birmingham.

"Encourage the sale of medicine, Mr. Mayall." The old fellow was right from the purely business point of view—a point lost sight of when the new rules of conduct were prescribed by the sages of 10 Red Lion Square. The English public likes bottles of medicine, and balls, and—especially powders that can be thrown into the manger; and the most valuable practices at this time are those in which much medicine is dispensed and visiting fees are low. There is a practice, not a hundred miles from mine, in which the fees charged are less than half those obtained by myself, *but* (with a big, big B) a half-crown visit is followed by three bottles at 3s. each, and this is the more profitable plan. My analysis leads me to the conclusion that the 3s. "drinks" (with notched corks to distinguish them from embrocations) are not too expensive to be dispensed in large quantities and leave a margin of profit. The following formula represents

a useful "drink" for many purposes, although the author of the "Common Colics" might not accept it as a cure-all:—

| | | |
|---|---|---|
| R. Tinct, Opii. Meth. | | vi. dr. |
| Spirit Tereb. | | i. oz. |
| Liq. Potassæ | | ii. dr. |
| Ol. Lini. ad | | x. oz. |

Misce. fiat haust.

It is the custom in another old-established practice I know well to receive "orders" for 3 doz. cough drinks (always "drinks," please note) at 30s. per doz., and gripe and fever dittos at about the same figure.

The same thing is happening to us as to the chemist and druggist. While a qualification was chiefly ornamental, but not a legal necessity, the knight of the pestle made large profits on preparations well known to the public. Prepared by every chemist according to the B.P. he knew what to "stock" and how to make, and relied upon dispensing at good prices. When he desired to soar into the professional region and have a compulsory qualification (albeit no compulsory curriculum) he succeeded in elevating his craft in the eyes of the public, but only made obstacles for the craftsmen whose remuneration has decreased in inverse ratio to the educational requirements now insisted on by the State.

Whether we know it or not, we are Socialists. We are working for the good of the public, demanding higher and higher qualifications, while, by self-denying ordinances, we prevent ourselves from trading in medicines we are specially educated to dispense. Some of us give lectures to farmers, and others answer queries in agricultural papers, while all of us do what we can to prevent disease. But none of these things diminish our income so much as the quack medicine business. We might have taught the public to look to us for medicines for animals, but we have closed our factories and encouraged free imports of all the goods that used to make a small practice into a good business.

Have we done right? Should Rule 113 be rescinded?—Yours, etc.,

HAROLD LEENEY, M.R.C.V.S.

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Sir,

In this discussion several questions have arisen which require an answer. Where do the horses from London go? A friend of mine in answering this question landed himself into a libel action, so not wishing to get both you and myself into trouble I will make use of a cockney expression:—They go on the boat for—. As to the future of the veterinary profession—it is not ours to know. Those who have had a fair amount to do with the seasoning, acclimatising, and working of horses must recognise that horse traction will never compete on its own ground with mechanical traction, although I take it that we are all living in hope, if we die in despair. Personally, I am inclined to believe that we are like salt which has lost its savour.

I have been accused of being conservative, indeed I hold that every professional man must be conservative. Trade in the veterinary profession is gradually dying out; the days of money making by the practice of veterinary surgery are over—difficult as it may be to convince the income-tax collector on this point. What is the ultimatum? It has been said, and there is a lot of truth in it, that no man should enter a profession without money, influence, or a living to succeed to, and this remark will hold good in the future as regards the veterinary profession. Those who enter contrary to this rule will to a large extent have to content themselves with a small crust and only occasionally the wipe of a hammy knife.

Socially we are improving; financially declining. We must make up our depleting incomes by attracting recruits from a superior class of society and with an income in their own right. Those who are educating their sons up to the standard of the veterinary matriculation without financial support should make pupil teachers of them under our County Councils, a walk of life in which we can all say: The harvest truly is plentiful but the labourers are few, for hundreds are still required.

Taking the matrimonial point: I take it that the days are over when the veterinary surgeon looked to the bar of a hotel to provide him with a wife. Given a fair social standing, ladies of society, money, and influence will not be adverse to marrying into the profession, although up to the present we have been unable to give them a *quid pro quo*, viz., a professional standing uncontaminated with trade for the lucre. You, sir, no doubt know that I hold strong views on this matter, and having promised long enough ago a paper on the veterinary outlook, must conclude with apologies for trespassing upon your space.—Yours as usual,

GEORGE UPTON.

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## VETERINARY SOCIETIES—A SUGGESTION.

Sir,

Some of our professional societies now possess small collections of books and surgical instruments for the use of their members, and it has occurred to me that one or two of the larger ones, at any rate, might with advantage collect a small museum. I do not mean a general pathological museum, into which every specimen exhibited at the Society's meetings, whether noteworthy or not, would eventually find its way, but a special collection of specimens (with histories attached) of any particular disease or diseases regarding which our knowledge is still incomplete.

Take, for instance, spavin. If the members of, say, the Central V.M.S., many of whom have exceptional opportunities, would go to the trouble and the small expense of obtaining, whenever they could, specimens of hocks which had been known or suspected to be diseased, and of which they could furnish some history, it is very probable that that Society, before long, would possess a collection which would be of real service in the study of a disease regarding which there is still something to be learned.

Thanking you in anticipation, I leave the suggestion for the Societies to take up, if their members see fit.—Yours faithfully,

PARACELSUS.

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## VETERINARY DISPENSARIES IN IRELAND.

Sir,

In your editorial on this subject in last week's *Record* you state: "It is proposed to turn out all the standing inspectors who have devoted a lifetime to their work and to supersede the Central Organisation now dealing with cases under the Diseases of Animals Acts." I agree with you this would be a very extreme demand if it were intended. The idea, however, is not to attack the *Central* organisation, which, by the way has recently been made an established service, but to re-organise and amalgamate the *Local* Veterinary Inspectors' duties under the Diseases of Animals Acts with the new dispensary duties.

The question is therefore one which directly affects the interests of the *Local* Veterinary Inspectors, who are as a rule also local practitioners.—Yours, etc.,

REFERO RELATA.

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Sir,

Veterinary Inpectors need not fear that English laws, ever pre-eminently just in the case of vested interests, will allow them to be thrown overboard without the fullest compensation should the dispensary scheme ever come into existence. More especially can a Liberal Government be relied on in this way where it concerns labour, and who such a persistent labourer as the Veterinary Inspector who has worked incessantly and successfully to rid the country of plagues.—Yours, etc.,

JUSTICE.

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COMMUNICATIONS AND PAPERS RECEIVED.—Capt G. M. Walker, Messrs. S. J. Hewitt, H. C. Wilkie, H. B. Eve, E. Wallis Hoare, G. Upton, H. Leeney, H. Bibby, J. Temple. G. M, "Multum-in-Parvo," "Canis."

*The Mola sine Monthly, Vol. I. No. 2. The Louth and North Lincolnshire Advertiser, The Daily Mail.*

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Original articles and reports should be written on one side only of the paper and authenticated by the names and addresses of the writers, not necessarily for publication.

Communications for the Editor to be addressed 20 Fulham Road, S.W.